The project objectives of time and cost reduction will be evaluated by observation and focus groups to be conducted at Walden University in five steps within the project’s time frame of six weeks.

Tentative Budget

**Technology Purchases –**

**On demand EC2 (Elastic Compute Cloud)- .12 cents per hour, estimating that it takes one hour per lead Center of Undergraduate faculty to complete an assessment at 460 CUGS (see attached PowerPoint Presentation)faculty members - 460 \* .12 \* 1 hour = $55.20 per each six week assessment. No up-front payment is required.**

**Microsoft SQL Server On Demand would also be 460 \* .12 \* 1 hour =$55.20 per each six week assessment. This would allow querying of the database on demand.**

**Formative Testing – By lead faculty in groups of 3 at 50 dollars per hour at 5 steps in the formative process – 3 \*50 \*5 = $750.00**

**Personnel Training –**

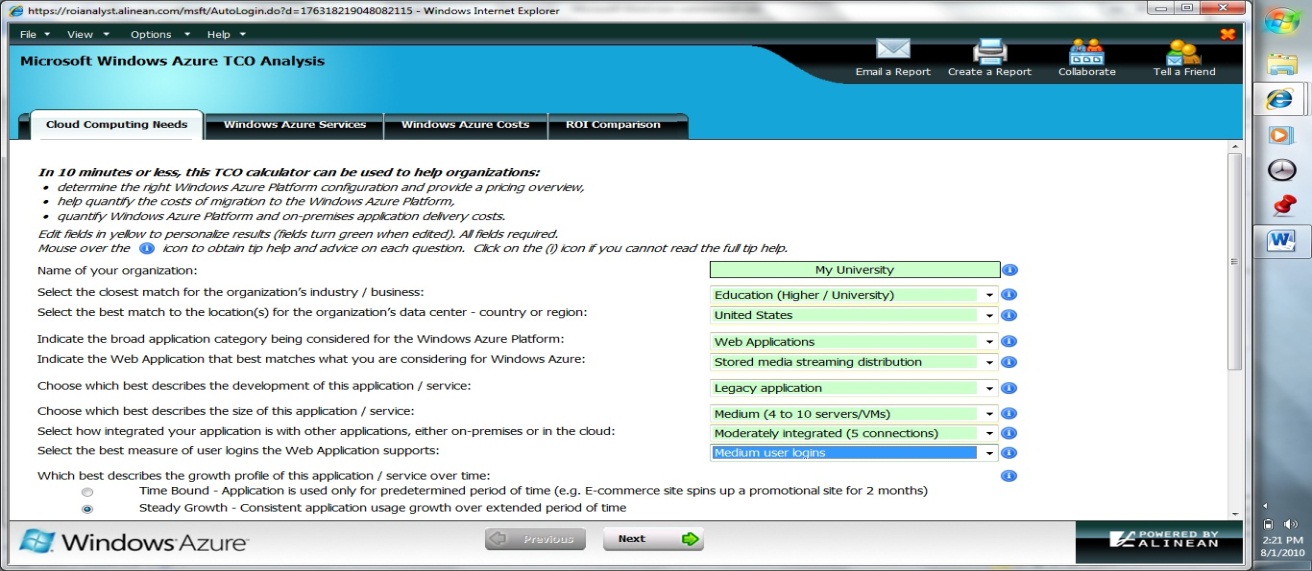
**Adjunct Faculty –** no cost incurred except for reading an e-mail associated with logon instructions to Cloud.

**Lead Faculty –** 1 hour of training at a low cost of 50 dollars per hour for 19 lead faculty (See Appendix Worksheet B) at a one-time cost of $50 \*19 = $950.00

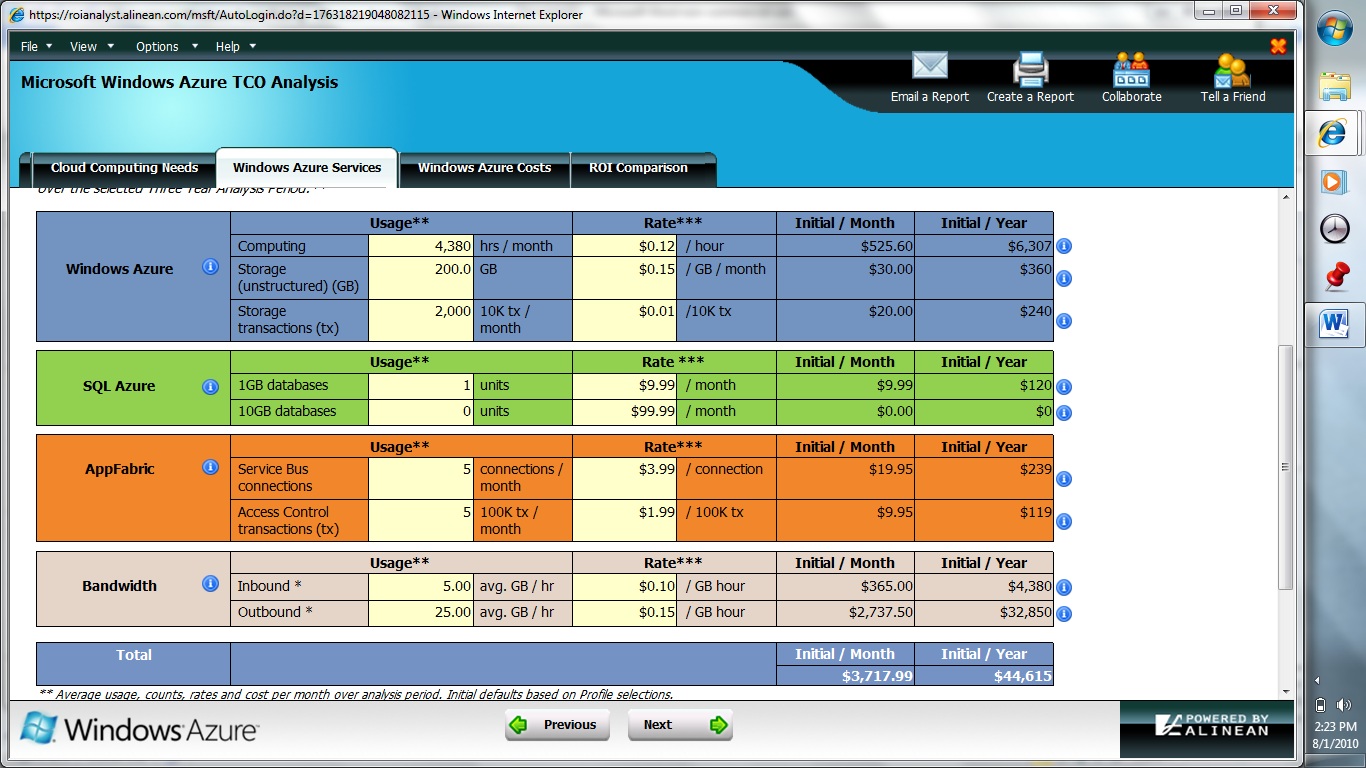
**Supporting Documentation for Budget**

Most, of the top volume cloud computing companies do not Word or Excel, have a volume licensing of Microsoft Office. With the release of Office 2007, Microsoft requires a volume licensing agreement to run Excel 2007, under Terminal Services as with Citrix servers and Unix servers so this eliminates most cloud computing companies. “That’s why a company called [Cloudscale](http://www.cloudscale.com) is launching a new product at DEMO called [Cloudcel](http://www.cloudcel.com). The application connects Excel with online, [cloud computing](http://en.wikipedia.org/wiki/Cloud%20computing) infrastructure like Amazon and Windows Azure on the back-end. That means users get the power of cloud computing, like the ability to store massive amounts of data, while using the Excel interface they’re used to. They can also build applications for Excel that further manipulate the data.” This would require Azure as a front-end.

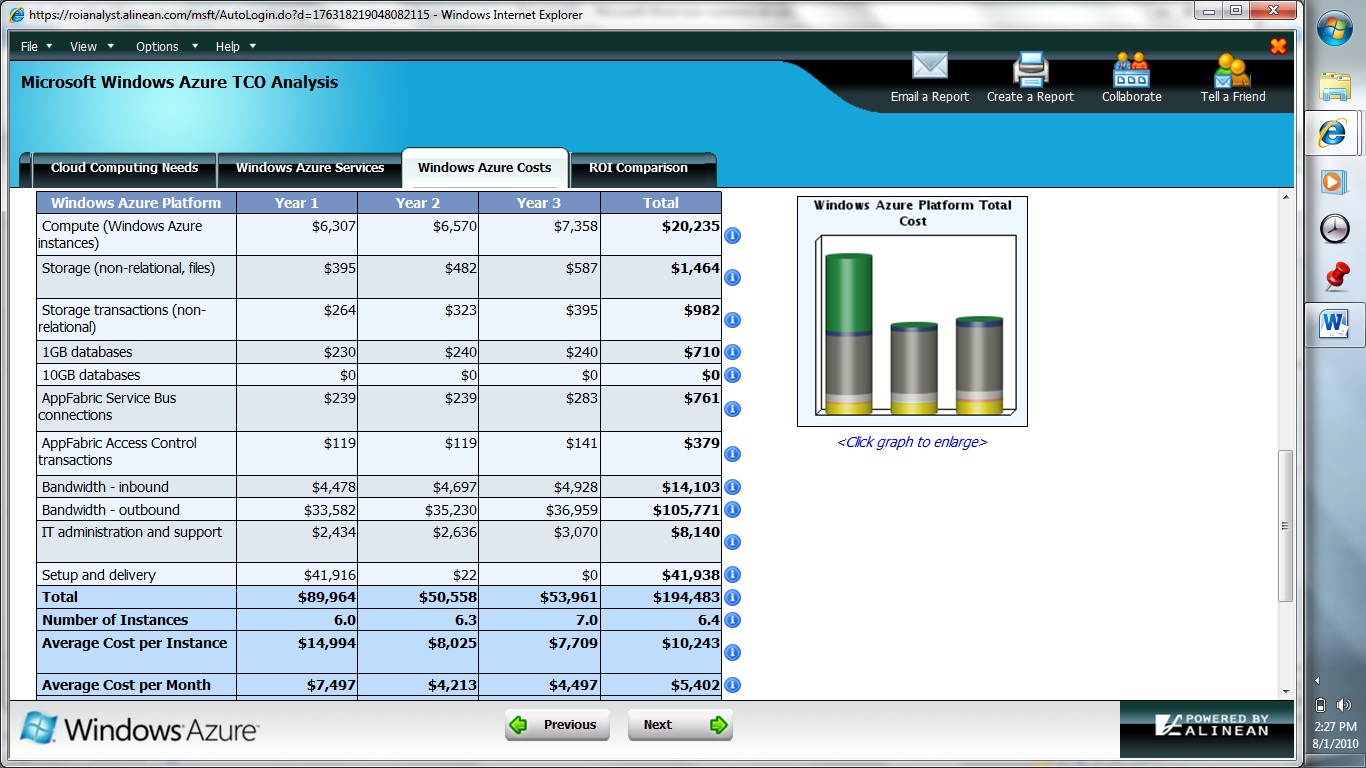
The Microsoft Azure suite with all Office 2010 ten lists



I specified a maximum quantity of servers and integrated systems for a proposed system branching 10-20 years in the future.



The initial setup is approximately 45, 000 dollars but as you drill down for 3 years of costs.



Your costs bloom upwards to 195,000 dollars. This would not be appropriate at this time.

You could load up your own private license on an Amazon machine image (AMI) on their EC2 server. Windows usage including Excel and Access is priced at .12 cents per hour. Microsoft On Demand SQL Server usage would also be priced at .12 cents per hour, which would allow portage into a Microsoft database for further statistical analysis.

“Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. It is designed to make web-scale computing easier for developers. Amazon EC2’s simple web service interface allows you to obtain and configure capacity with minimal friction. It provides you with complete control of your computing resources and lets you run on Amazon’s proven computing environment. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down, as your computing requirements change. Amazon EC2 changes the economics of computing by allowing you to pay only for capacity that you actually use. Amazon EC2 provides developers the tools to build failure resilient applications and isolate themselves from common failure scenarios.” (Amazon.com)

Amazon.com provides On Demand Instances with no long commitments and it will increase or decrease capacity on a per hour basis as needed. This is recommended for first time development and deployment. No up-front payment cost is incurred. (Amazon.com)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | US – N. Virginia | |  | | US – N. Virginia | | | |  | |  |  |
| **Standard On-Demand Instances** | **Linux/UNIX Usage** | **Windows Usage** | | **Standard On-Demand Instances** | **Linux/UNIX Usage** | **Windows Usage** |  |  | |  |
| Small (Default) | $0.085 per hour | $0.12 per hour | | Small (Default) | $0.085 per hour | $0.12 per hour |  |  | |  |
| Large | $0.34 per hour | $0.48 per hour | | Large | $0.34 per hour | $0.48 per hour |  |  | |  |
| Extra Large | $0.68 per hour | $0.96 per hour | | Extra Large | $0.68 per hour | $0.96 per hour |  |  | |  |

“SQL Server Express Edition, Microsoft IIS and ASP.NET can be used on any Amazon EC2 instance running Windows Server for no additional cost.” (Amazon.com)

|  |  |  |
| --- | --- | --- |
| US – N. Virginia | | |
| **Standard Instances** | **Windows Usage** | **Windows and SQL Server Usage** |
| Small (Default) | $0.12 per hour | --- |
| Large | $0.48 per hour | $1.08 per hour |
| Extra Large | $0.96 per hour | $1.56 per hour |

**Amazon EC2 will be the intended Cloud computing company due to On Demand service and pricing will database capabilities.**

**Technical Information**

“Standard Instances

Instances of this family are well suited for most applications.

Small Instance – default\* provides

1.7 GB memory

1 EC2 Compute Unit (1 virtual core with 1 EC2 Compute Unit)

160 GB instance storage (150 GB plus 10 GB root partition)

32-bit platform

I/O Performance: Moderate

API name: m1.small” (Amazon.com)

**Links to Web Sites**

<http://aws.amazon.com/ec2/>

<http://aws.amazon.com/ec2/instance-types/>

<http://aws.amazon.com/ec2/pricing/>

<http://aws.amazon.com/ec2/purchasing-options/>

<http://aws.amazon.com/windows/>

<http://www.microsoft.com/windowsazure/economics/>

**Formative Evaluation Plan**

**Ease of Use**

Ease of use can be measured by “Focus groups–Have several people test the product and then observe their conversation about the product. You begin by giving them a set of general questions, and then observe and write down their behavior and comments. If they get off track you can redirect their conversation, but your input should be minimal. ”

“Observation–This is usually done by observing two or more people using the product. Record where they click, how long things take to finish, at what point they ask questions, etc. Ask questions upon completion.” “Focus groups–Have several people test the product and then observe their conversation about the product. You begin by giving them a set of general questions, and then observe and write down their behavior and comments. If they get off track you can redirect their conversation, but your input should be minimal. ” (Landau, 2001)

* Each testing group will be with 3 lead faculty members and be diverse in age and experience. Observe if the lead faculty have questions about where to click and if directions are uncomplicated and easy to manipulate.
* Record time to log on and complete one test faculty assessment and send out one e-mail to all 460 faculty members. This will give a cost comparison between the Cloud and e-mail assessment facilities.
* Testing will occur at Walden University computer lab.

**Evaluation of Content**

* Should be in five steps: 1 step for each month of work on the project and a final sign off for project before launch by the testing group selected
* Evaluation will consist of re-design of the Cloud if needed to clarify any goals and to meet objectives of cost and time reduction
* Recording of any obstacles encountered

**Unintended Consequences**

“Unintended consequences are when you had the intention of providing one service or message and users interpret and practice it in ways you didn’t think of.” (Landou, 2001)

* Record any unintended usages or proposals on usage on the Cloud
* Keep in mind that as the scope of the project increases so does the time, budget and resources

**Summative Evaluation Plan**

“Summative evaluation is meant to evaluate the program at its conclusion. This type of evaluation will attempt to determine: the success of the project, goals being met, participant satisfaction and benefit, effectiveness, end results versus cost, and whether the program should be repeated or replicated.” (MacDonald, 2005)

Document achievement and problems – Record all comments from lead faculty

Document habits – Document click and habits of lead faculty and how the Cloud maneuvers

Evidence of regular formative evaluation – Written observation notes from each focus group

Evidence – Tabulation of cost and time reduction of lead faculty in Word

(University of Texas at El Paso)

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Landou, V. (2001). Topic 10: Developing a project management plan. Retrieved 08 05, 2010 from <http://www.roundworldmedia.com/cvc/module10/notes10.html>

MacDonald, J. (2005). Program Evaluation: Formative vs summative evaluation, Retrieved 08 09, 2010 from <http://www.associatedcontent.com/article/14404/program_evaluation_formative_vs_summative.html?cat=4>

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VentureBeat. (2010). DEMO: Cloudcel connects Excel to cloud computing. Retrieved 08 01, 2010 from <http://demo.venturebeat.com/2010/03/22/cloudcel-cloudscale/>

Appendix Worksheet A- Master List form 2009

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | **Course** | **Course/Section Title** | **Lead Faculty** |
| SOCI | 1001 | Introduction to Sociology | Angles, Joaquin |
| SOCI | 2001 | Multicultural Dim of Society | Angles, Joaquin |
| CHEM | 1001 | Introduction to Chemistry | Bliss, Eric |
| MATH | 0099 | Algebra Fundamentals | Bliss, Eric |
| MATH | 1001 | College Algebra | Bliss, Eric |
| PHSC | 1001 | Earth Science | Bliss, Eric |
| HIST | 2005 | World History: 1900 - 1945 | Danver, Steven (FT) |
| HIST | 2006 | World History: 1945 - 2000 | Danver, Steven (FT) |
| COMM | 1000 | Comm Skills for Career Devt | Dzuba, Roman / Eugene McKee |
| COMM | 1001 | Contemporary Communications | Dzuba, Roman / Eugene McKee |
| COMM | 1002 | Group Presentation Discussion | Dzuba, Roman / Eugene McKee |
| GNED | 1001 | Developing Student Portfolios | Dzuba, Roman / Eugene McKee |
| ENGL | 0099 | Academic Writing Fundamentals | Ewertz, Jon |
| ENGL | 1001 | English Composition | Ewertz, Jon |
| ENGL | 2002 | Professional Writing | Ewertz, Jon |
| BIOL | 1001 | Introduction to Biology | Lasker, Grace |
| NASC | 1001 | Environmental Science | Lasker, Grace |
| SCNC | 4001 | Analyzing Contemporary Scientific Controversies | Lasker, Grace |
| ANTH | 3001 | Indigenous Peoples in the Modern World | Leppman, Elizabeth |
| GEOG | 1001 | World Regional Geography | Leppman, Elizabeth |
| POLI | 1001 | American Government | Leppman, Elizabeth |
| IDST | 1001 | Introduction to Interdisciplinary Studies | Okpala, Jude (FT) |
| IDST | 1050 | Experience: Self Identity in a Global Society | Okpala, Jude (FT) |
| IDST | 2050 | Experience: Sustaining Quality of Life in the City | Okpala, Jude (FT) |
| COMM | 1003 | Mass Communication | Paulson, Jon (FT) |
| COMM | 1004 | Interpersonal Communication | Paulson, Jon (FT) |
| COMM | 4001 | Intercultural Communication | Paulson, Jon (FT) |
| ENGL | 2001 | Introduction to Literature | Pertillar-Brevard (FT) |
| HMNT | 3001 | Modern Popular Culture | Pertillar-Brevard (FT) |
| ARTS | 1001 | Introduction to Fine Arts | Pertillar-Brevard, Lisa (FT) |
| PHIL | 1001 | Introduction to Philosophy | Tolf, Mark |
| PHIL | 2001 | Ethics | Tolf, Mark |
| PHIL | 3010 | Science and Spirituality | Tolf, Mark |
| RELG | 2001 | World Religions | Tolf, Mark |
| SOCI | 4080 | Social Responsibility | Williams, Felecia |
| MATH | 1002 | Applied Math | Williams, Stacie (FT) |
| STAT | 3001 | Statistical Methods and Applications | Williams, Stacie (FT) |

Appendix Worksheet B

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course #** | **Course Name** | **Discipline (mouse over red tab for explanation)** | **Proposed Lead (To begin Winter 2 2010)** | **Full-Time Faculty** |
| COMM - 1002 | Group Presentation Discussion | Communication E | Konrath | Paulson/TBH |
| COMM - 1003 | Intro to Mass Comm | Communication E | Konrath | Paulson/TBH |
| COMM - 1004 | Interpersonal Comm | Communication E | Konrath | Paulson/TBH |
| COMM - 4001 | Intercultural Communication | Communication E | Konrath | Paulson/TBH |
| COMM - 1000 | Comm Skills for Career Devt | Communication R | Dzuba, McKee, DePaoli | Paulson/TBH |
| COMM - 1001 | Contemporary Communications | Communication R | Dzuba, McKee, DePaoli | Paulson/TBH |
| ENGL - 0099 | Academic Writing Fundamentals | Composition | Scarpa | Pertillar-Brevard/TBH |
| ENGL - 1001 | English Composition | Composition | Ewertz | Pertillar-Brevard/TBH |
| ENGL - 2002 | Profess Writing | Composition | Ewertz | Pertillar-Brevard/TBH |
| ARTS - | Intro to Photography | Humanities A | Nelson (In March) | Pertillar-Brevard |
| ARTS - 1001 | Introduction to Fine Arts | Humanities A | Tricic | Pertillar-Brevard |
| ENGL - 2001 | Introduction to Literature | Humanities A | Nelson | Pertillar-Brevard |
| ENGL - 2110 | Creative Writing 1: Short Prose | Humanities A | Tricic (In March) | Pertillar-Brevard |
| ENGL - 3110 | Creative Writing 2: Poetry and Nonfiction | Humanities A | Tricic (In March) | Pertillar-Brevard |
| HMNT - 3001 | Modern Popular Culture | Humanities P | Tricic | Pertillar-Brevard |
| PHIL - 1001 | Introduction to Philosophy | Humanities P | Beers | Pertillar-Brevard |
| PHIL - 2001 | Ethics | Humanities P | Beers | Pertillar-Brevard |
| PHIL - 3010 | Science and Spirituality | Humanities P | Beers | Pertillar-Brevard |
| RELG - 2001 | World Religions | Humanities P | Beers | Pertillar-Brevard |
| IDST - 1001 | Intro Interdisc Studies | Interdisciplinary | Williamson | Okpala |
| IDST - 1050 | Interdisc Exp: Self Identity | Interdisciplinary | Williamson | Okpala |
| IDST - 2050 | Interdisc Exp: Sus Qual Life | Interdisciplinary | Williamson | Okpala |
| IDST - 3050 | Interdisc Exp: Eff Pop Mvmts | Interdisciplinary | Okpala | Okpala |
| IDST - 4001 | Sem Interdisc Resch | Interdisciplinary | Okpala | Okpala |
| IDST - 4002 | Seminar in Public Service | Interdisciplinary | Okpala | Okpala |
| IDST - 4003 | Seminar with Internship | Interdisciplinary | Okpala | Okpala |
| IDST - 4080 | Capstone0Interdisciplinary Methodology 1 | Interdisciplinary | Okpala | Okpala |
| IDST 4004 | Seminar with Study Abroad | Interdisciplinary | Okpala | Okpala |
| IDST 4081 | Capstone0Interdisciplinary Methodology 11 | Interdisciplinary | Okpala | Okpala |
| MATH - 1002 | Applied Math | Mathematics A | Broman | Williams |
| STAT - 3001 | Statistical Methods | Mathematics A | Broman | Williams |
| MATH - 0099 | Algebra Fundamentals | Mathematics B | Arteaga | Williams |
| MATH - 1001 | College Algebra | Mathematics B | Arteaga | Williams |
| BIOL - 1001 | Introduction to Biology | Natural Sciences L | Lasker | Bliss |
| NASC - 1001 | Environmental Science | Natural Sciences L | Lasker | Bliss |
|  | Nutrition | Natural Sciences L | Lasker | Bliss |
| CHEM - 1001 | Introduction to Chemistry | Natural Sciences P | Clay | Bliss |
| PHSC - 1001 | Earth Science | Natural Sciences P | Clay | Bliss |
| SCNC - 4001 | Analyze Contemp Science Contro | Natural Sciences P | Clay | Bliss |
| PSYC - 1001 | Introduction to Psychology | Social Science B | Groneau | Danvers |
| SOCI - 1001 | Introduction to Sociology | Social Science B | Angles | Danvers |
| SOCI - 2001 | Multicultural Dim of Society | Social Science B | Angles | Danvers |
| SOCI - 4080 | Social Responsibility | Social Science B | Angles,Devine | Danvers |
| ANTH - 3001 | Indigenous Peoples in Mod Wrld | Social Science C | Leppman | Danvers |
| GEOG - 1001 | World Regional Geography | Social Science C | Leppman | Danvers |
| HIST - 2005 | World History: 1900 - 1945 | Social Science C | Douzart | Danvers |
| HIST - 2006 | World History: 1945 - 2000 | Social Science C | Douzart | Danvers |
| POLI - 1001 | American Government | Social Science C | Leppman | Danvers |